

Remarks

Claims 1-59 are pending in the application. Claims 47-59 were withdrawn from consideration by the Examiner as drawn to an unelected group. Claims 1-46 have been amended to promote prosecution. Applicants reserve the right to present any withdrawn or canceled subject matter in one or more continuation or divisional applications.

Allowable Subject Matter

Applicants are pleased to note that the Examiner has allowed claims 1-24, and has found claims 26, 28, 29, 30-35, 36-46 allowable upon amendment. Amendments have been made as detailed below to overcome the Examiner's objection and Applicants believe that claims 1-24, 26, 28, and 29-46 are now in condition for allowance.

Rejection of the Abstract

The Examiner has objected to the Abstract of the Invention as too generic to properly describe the invention. Applicants have amended the Abstract to overcome the Examiner's rejection. The new abstract discloses the general method described on pages 12 and 13 of the specification under the "Summary of the Invention."

Rejection of the Oath or Declaration

The Examiner objected to the Declaration because inventor Jin's address was amended without initial or date. Applicants are currently in the process of obtaining a signature on a new Declaration from this inventor. The corrected Declaration will follow under separate cover.

Rejections under 35 U.S.C. § 112

Claims 29, 35 and 41 were rejected under 35 U.S.C. § 112 as indefinite because the claims inadvertently cite the limitation that X is "Cl, Br, or IV." As requested by the Examiner, claims 29, 35 and 41 have been amended to read "X is Cl, Br, or I." Claims 30-35, 36-40 and 42-46 were rejected because they depend from rejected claims 28, 35 and 41. Applicants believe that the amendments to independent claims 28, 35 and 41 overcome the rejections of claims 30-35, 36-40 and 42-46.

Rejections under 35 USC § 102(b)

Formula II of claim 25 is rejected under 35 USC § 102(b) as anticipated by structures 11a-c of Watanabe, et al. ((1980) *J. Medicinal Chemistry*, Ref. AK) when Q is R^1CH_2 , R^1 is hydrogen, R^3 is chlorine. Applicants have amended claim 25 so that, in formula II, R^1 is C_1-C_6 alkyl. Compounds 11a-c of Watanabe do not suggest either C_1-C_6 acyl or substituted ester substituents on the sugar as required by the amended claim. Formula II* of claim 25 is rejected under 35 USC § 102(b) as anticipated by Lopez, U.S. Patent No. 4,594,339. In response, Applicants have amended claim 25 so that in Formula II*, Q is $R^1CH_2C(=O)OC(R^2)_2$. Lopez does not suggest the amended structure of claim 25.

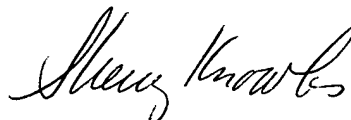
Claim 27 is rejected under 35 USC § 102(b) as anticipated by structures 15a-c of Shi et al. ((1999) *J. Medicinal Chemistry*, Ref. CA). Applicants have amended claim 27 to overcome this reference so that in the amended claim, Q is $R^1CH_2C(=O)OC(R^2)_2$. Shi does not suggest this substituent.

The Examiner's attention is also drawn to U.S. Patent No. 5,200,514 to the University of Georgia Research Foundation. The patent discloses the synthesis of 2'-deoxypyrimidines. This synthesis involves reaction of a nucleoside with cis-hydroxyl groups in the 2' and 3' positions with an acyl halide and a mineral acid (HX) to form a 2',3'-haloacyl compound that can subsequently be reduced to the corresponding 2',3'-dideoxy-2',3'-didehydronucleoside. The claims as now amended exclude the use of an acid catalyst in step (2), in the reduction of the 2'- or 3'-halonucleoside to the 2',3'-dideoxy-2',3'-didehydronucleoside. Support for this amendment can be found throughout the specification, for example in original claim 1, in the recitation of "optionally in the presence of a suitable acid catalyst." The term "optionally" implies that one possibility is the absence of the compound. The amendment is also supported by the examples, such as Example 6, which shows the preparation of a compound of Formula III-a in the absence of an acid catalyst.

Conclusion

Applicants believe that the Examiner's objections to the specification and claims have been addressed. In addition, Applicants have taken into consideration the Examiner's rejections and believe that the amendments and arguments place the application into condition for allowance. Applicants believe no charges are associated with this submission, however the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 11-0980.

Sincerely,

A handwritten signature in cursive script, reading "Sherry M. Knowles".

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